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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/604,988 | 08/29/2003 | Marwan H. Khater | FIS920030097US1 | 1987 |
| 32074 | 7590 | 11/19/2004 | EXAMINER | |
| INTERNATIONAL BUSINESS MACHINES CORPORATION DEPT. 18G BLDG. 300-482 2070 ROUTE 52 HOPEWELL JUNCTION, NY 12533 | | | DANG, PHUC T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2818 | |
| DATE MAILED: 11/19/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|--------------------------------|-------------------------------------------------------------------------------------|
| Office Action Summary | Application No. 10/604,988 | Applicant(s) KHATER ET AL.8 | |
| | Examiner PHUC T DANG | Art Unit 2818 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on election filed on October 26, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) 1-7 and 27-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-26 is/are allowed.
- 6) ☒ Claim(s) 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>082903 & 091003</u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election filed on October 26, 2004 has been considered.

In election, Applicants elect Group II (claims 8-26) for examining at this time.

Applicants have the right to file a divisional of application covering the subject matters of the non-elected claims of Group I (claims 1-7 and 27-30).

Claims 1-30 are currently pending in the application.

Oath/Declaration

2. The oath/declaration filed on August 29, 2003 is acceptable.

Information Disclosure Statement

3. The office acknowledges receipt of the following items from the applicant:

Information Disclosure Statement (IDS) filed on August 29, 2003 and September 10, 2003.

Specification

4. The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was

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commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 8-9 are rejected under 35 U.S.C. 102 (b) as being anticipated by Johnson (U.S. Patent No. 5,541,121).

Regarding claim 8, Johnson discloses a transistor comprising:

a remaining portion of an emitter landing pad (132, Fig. 6) that is distanced (120, Fig. 6) from an intrinsic base (1108, Fig. 6).

Regarding claim 9, Johnson discloses the remaining portion is distanced from the intrinsic base (108, Fig. 6) by extrinsic base layer (110, Fig. 6), and the extrinsic base layer (110, Fig. 6) includes an oxide section (130, Fig. 6) that determines a distance between an emitter (132, Fig. 6) and an extrinsic base (110, Fig. 6).

Allowable Subject Matter

6. Claims 13-26 would be allowed.

The following is a statement of reason for the indication of allowable subject matter:

Claims 13-26 are considered allowable since the prior art of record and the considered pertinent to the applicant's disclosure does not teach or suggest the claimed invention having a remaining portion of an emitter landing pad that separates each of the first and second extrinsic base layer from one another adjacent the emitter as recited in claim 13 and an oxide section in an

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extrinsic base layer, the oxide portion extending below a part of the remaining portion, wherein a width of the oxide section determines an amount of base resistance as recited in claim 23.

Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the Prior Art of record discloses a width of the oxide section determines a base resistance as recited in claim 10 and the width of the oxide section determines a length of the remaining portion that current must traverse as current passes through the extrinsic base as recited in claim 11 and the thickness of the oxide section is sufficient to prevent current from having to traverse the remaining portion as recited in claim 12.

Conclusion

7. Applicants are advised to cancel the non-elected claims of Group I (claims 1-7 and 27-30) in response to the next Office action if the application is considered to be allowed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuc T. Dang whose telephone number is (571) 272-1776. The examiner can normally be reached on 8:00 am-5:00 pm.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and After Final communications.

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10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Phuc T. Dang

P.D.

A handwritten signature in black ink, appearing to read "Phuc T. Dang", with a long, sweeping horizontal stroke extending to the right.

Primary Examiner

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